

ABSTRACT

Disclosed are compositions, systems and methods for treating a subject's body, body part, tissue, body fluid cells, pathogens, or other undesirable matter involving the

5 administration of a targeted thermotherapy that comprises a bioprobe (energy susceptible materials that are attached to a target-specific ligand). Such targeted therapy methods can be combined with at least one other therapy technique. Other therapies include hyperthermia, direct antibody therapy, radiation, chemo- or pharmaceutical therapy, photodynamic therapy, surgical or interventional therapy, bone marrow or stem cell transplantation, and medical

10 imaging, such as MRI, PET, SPECT, and bioimpedance. The disclosed therapies may be useful in the treatment of a variety of indications, including but not limited to, cancer of any type, such as bone marrow, lung, vascular, neuro, colon, ovarian, breast and prostate cancer, epitheloid sarcomas, AIDS, adverse angiogenesis, restenosis, amyloidosis, tuberculosis, cardiovascular plaque, vascular plaque, obesity, malaria, and illnesses due to viruses, such as

15 HIV.